PS 3: Introduction to Empirical Analysis and Quantitative Methods
Version 8/24/15

Fall 2015
M,W 4-5:30pm, 2050 Valley LSB

Professor Jason Wittenberg
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Office hours: Tues 10-12
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Course Description: This course provides an overview of some of the methods employed in political science research. Its purpose is to familiarize you with the scientific study of politics, and to teach you how to pose and answer empirical research questions using appropriate evidence and arguments. Along the way we will learn about how to formulate and evaluate theories, how to design research to discover whether a particular theory holds up empirically, and some basic research strategies. Topics include spatial modeling, game theory, experiments, and basic statistics. By the end of the course you should have the tools to critically evaluate the kinds of social science arguments found in everyday life.

Course Requirements: There are no prerequisites other than high school algebra and geometry, but keep in mind that we will be introducing new notation and applying familiar mathematical techniques in new ways. Students are expected to attend class regularly, do the assigned reading, complete all exams and homework, and participate in section.

The course grade will be based on two in-class midterms, the final exam, four homework assignments, and participation in section. The grade will be computed as a weighted average of the different course components, with the following weighting:

Midterms	40%
Final Exam	30%
Homework	20%
Discussion Section	10%

Homework assignments must be uploaded as Adobe PDF files to bCourses by the beginning of the lecture (4:00 pm) on the dates they are due. Your GSIs will explain how to create PDF files and the procedure for uploading them. Please note that it is YOUR responsibility to start the process of creating and submitting the PDF in time to meet the

deadline. Penalties for late submission will be severe. Extensions will be granted only with proof of a legitimate medical reason.

You may cooperate on the homework but be sure the work you turn in is your own. Academic misconduct, also known as cheating and/or plagiarism, will not be tolerated. For information on what constitutes misconduct please see: http://sa.berkeley.edu/conduct and http://asuc.org/honorcode .

Section Information: The GSIs and section information are listed in the table below. (All email addresses are @berkeley.edu.) You are not enrolled in the course unless you are enrolled in a section. *If you are a DSP student please let your GSI know by Friday, September 11.*

Sect #	Time	Location	GSI	Email
101	Tu 12-2pm	185 Barrows	Andrew Bertoli	abertoli
102	Tu 2-4pm	185 Barrows	Andrew Bertoli	abertoli
103	Tu 4-6	587 Barrows	Anustubh Agnihotri	anustubh
104	Wed 8-10am	2066 VLSB	Katherine Michel	katherine_michel
105	Wed 10am-12	240 Mulford	Katherine Michel	katherine_michel
106	W 12-2pm	587 Barrows	Dan Mattingly	mattingly
108	Th 12-2pm	185 Barrows	Nafisa Akbar	akbar.7
109	Th 2-4pm	104 Barrows	Nafisa Akbar	akbar.7
110	Th 4-6pm	185 Barrows	Demetria McAleer	dfzaller
112	F 12-2pm	185 Barrows	Anustubh Agnihotri	anustubh
113	M 12-2pm	242 Hearst Gym	Demetria McAleer	dfzaller
114	W 2-4pm	223 Dwinelle	Dan Mattingly	mattingly

COURSE READER: The reader for this course is available at University Copy, 2425 Channing Way (549-2335). Some readings are available on bCourses, and are identified as such.

BOOK FOR PURCHASE: The following book is REQUIRED and available for purchase at the ASUC bookstore, near the corner of Bancroft and Telegraph.

Paul M. Kellstedt and Guy D. Whitten, *The Fundamentals of Political Science Research.* Second Edition. Cambridge: Cambridge University Press, 2013.

(Note: There is a first edition of this book floating around. I cannot say how the second edition differs from the first. However, the lectures, assignments, and exams assume the second edition.)

IMPORTANT NOTE: New and better readings are always coming to my attention. I therefore reserve the right to add and subtract from the syllabus.

Rules of the Road

1. I realize we live in a wired world, but personal technology is a distraction during lecture and section. Please keep your laptops, smartphones, and other electronic gadgetry off during lecture and section. For note-taking you will need to bring paper and a writing implement. If you have a disability that necessitates electronic assistance, please see me to request an exception. A DSP note will be required.
2. I do not post what passes for my lecture notes online, but I will make lecture slides available on bCourses.
3. I do not allow anyone to make announcements to the class regarding any activity not related to our course.
4. I do not hand out study sheets before exams. Part of mastering the material is learning to distinguish between important themes and incidental facts, a process your GSI and I are happy to assist you with. For exams you will be allowed to bring a hand calculator that lacks internet connectivity.
5. Please report any suspected errors in the grading of an assignment within two days of receiving the grade. I reserve the right not to effect a grade change if an issue is reported after two days have passed.
6. Syllabi are wonderful documents with lots of information on the time and place of office hours, the dates of exams, and course requirements. Please do not ask for information contained in the syllabus.
7. Unless otherwise specified no appointment is necessary to come to my office hours. If you are having problems with the material I encourage you to visit your GSI and me during office hours.

SCHEDULE OF LECTURES/READINGS/EXAMS

(Note: The exam and homework dates are fixed, but the dates for particular topics may vary depending on class progress.)

Week 1, August 26: Housekeeping and Course Overview

- Syllabus for PS: Introduction to Empirical Analysis and Quantitative Methods

Week 2, August 31: Studying Politics Scientifically

- Kellstedt and Whitten, Chapter 1.
- John H. Kranzler, *Statistics for the Terrified*. Third Edition. Prentice Hall, 2003, pp. 8-16. (bCourses)

- George Will, "Democracy in Iraq Isn't So Far-Fetched," *The NJ Press of Atlantic City*, September 8, 2003. (bCourses)
- Henry E. Brady, "Postponing the California Recall to Protect Voting Rights," *PS: Political Science and Politics* 37:1 (January 2004), pp. 27-32.

THE ART OF THEORY BUILDING

Week 2, Sept 2: Overview of Induction, Deduction, Rational Choice

- Kellstedt and Whitten, Chapter 2, sections 2.1 through 2.5.
- Gary King, Robert O. Keohane, and Sidney Verba, *Designing Social Inquiry*. Princeton: Princeton University Press, 1994, pp. 14-19.
- Earl Babbie, *The Practice of Social Research*. Eleventh Edition. Thomson-Wadsworth, 2007, pp. 49-55.
- Kenneth A. Shepsle and Mark S. Bonchek, *Analyzing Politics*. New York and London: W. W. Norton, 1997, pp. 49-53, 57-62. (bCourses)

Week 3, Sept 7: No class (Labor Day!)

Week 3, Sept 9: Deduction: Rational Choice and Spatial Voting

- Kellstedt and Whitten, Chapter 2, sections 2.6 through 2.8.
- Anthony Downs, *An Economic Theory of Democracy. New* Haven: Yale University Press, pp. 3-14; 21-35.
- Donald Green and Ian Shapiro, *Pathologies of Rational Choice*. New Haven: Yale University Press, 1994, pp. 151-153.
- Kenneth A. Shepsle and Mark S. Bonchek, *Analyzing Politics*. New York and London: W. W. Norton, 1997, pp. 140-144, 251-259. (bCourses)

Week 4, Sept 14-16: Deduction: Game Theory

- Avinash Dixit and Susan Skeath, *Games of Strategy*. New York and London: W.W. Norton, 1999, pp. 1-22, 24-32, 79-87, 97-99, 107-112.
- Kenneth A. Shepsle and Mark S. Bonchek, *Analyzing Politics*. New York and London: W. W. Norton, 1997, pp. 198-210. (bCourses)

Week 5, Sept 21: Criteria for a Good Theory: It is Causal?   (HW 1 DUE)

- Kellstedt and Whitten, Chapter 2, sections 2.9 and 2.10 (and list of concepts).
- Gary King, Robert O. Keohane, and Sidney Verba, *Designing Social Inquiry*. Princeton: Princeton University Press, 1994, pp. 99-114.

- Patrick J. Lyons, "You Gotta Believe," *The New York Times*, July 4, 1997.
- Sheryl Gay Stolberg, "Science, Studies, and Motherhood," *The New York Times*, April 22, 2001.

Week 5, Sept 23: Assessing Causality

- Kellstedt and Whitten, Chapter 3.
- John Allen Paulos, "Do Concealed Guns Reduce Crime?" ABCNews.com March 1, 2009.
- Henry Brady et al., "Law and Data: The Butterfly Ballot Episode," *PS: Political Science and Politics*, 34:1, 2001, pp. 59-69.

Week 6, Sept 28: Review Session
Week 6, Sept 30: Midterm (covering up to and including Sept 16)

RESEARCH DESIGN

Week 7, Oct 5-7: Research Design: Experiments

- Kellstedt and Whitten, Chapter 4, sections 4.1 and 4.2.
- Alan Krueger, "Turning Out the Vote," *The New York Times*, October 14, 2004.
- Thad Dunning, "Improving Causal Inference: Strengths and Limitations of Natural Experiments," *Political Research Quarterly*, Volume 61, Number 2, June 2008, pp. 282-293.
- Rebecca Morton and Kenneth Williams, "Experimentation in Political Science," in *Oxford Handbook of Political Methodology*, pp. 339-343.

Week 8, Oct 12: Research Design: Observational Studies   (HW 2 DUE)

- Kellstedt and Whitten, Chapter 4, sections 4.3 and 4.4 (and list of concepts).
- John Gerring, *Social Science Methodology: A Criterial Framework*. Cambridge University Press, 2001, pp. 155-199.

Week 8, Oct 14: Conceptualization and Measurement

- Kellstedt and Whitten, Chapter 5, sections 5.1 through 5.8.
- Janet Buttolph Johnson and H.T. Reynolds, *Political Science Research Methods*. Sixth Edition, CQ Press, 2009, pp. 81-85.
- Malcolm Gladwell, "Examined Life: What Stanley Kaplan Taught us about the SAT," *The New Yorker*, December 17, 2001.

- Pamela Paxton, "Women's Suffrage in the Measurement of Democracy: Problems of Operationalization," *Studies in Comparative International Development*, Fall 2000, Volume 35, Number 3, pages 92-111.
- Alan B. Krueger and David Laitin, "Faulty Terror Report Card," *Washington Post*, May 17, 2004, Page A21.

STATISTICAL METHODS

Week 9, Oct 19: Descriptive Statistics   (HW3 DUE)

- Kellstedt and Whitten, Chapter 5, sections 5.9 through 5.12 (and list of concepts).
- John H. Kranzler, *Statistics for the Terrified*. Third Edition. Prentice Hall, 2003, pp. 49-63.

Week 9, Oct 21: Statistical Inference: Probability and Sampling

- Kellstedt and Whitten, Chapter 6.
- Kranzler, pp. 115-123.
- Janet Buttolph Johnson and H.T. Reynolds, *Political Science Research Methods*. Sixth Edition, CQ Press, 2009, pp. 209-216; 227-240.
- "The Economist: Counting the casualties," *The Economist*, November 6, 2004.
- Charles Wheelan, *Naked Statistics*, Chapters 8-9. (bCourses).

Week 10, Oct 26: Review Session
Week 10, Oct 28: Midterm (covering Sept 21-Oct 19)

Week 11, Nov 2-4: Statistical Inference: Hypothesis Testing

- Kellstedt and Whitten, Chapter 7.
- Kranzler, pp. 123-127.

Week 12, Nov 9: Bivariate Regression I

- Kellstedt and Whitten, Chapter 8.
- Edward R. Tufte, *Data Analysis for Politics and Policy*. Prentice Hall, 1974, pp. 65-77.

Week 12, Nov 11: No class (Academic Holiday!)

Week 13, Nov 16: Bivariate Regression II

- Jeffrey A. Segal and Albert D. Cover, "Ideological Values and the Votes of U.S. Supreme Court Justices," *American Political Science Review*, Vol. 83, No. 2, June 1989, pp. 557-565.

Week 13, Nov 18: Multiple Regression I

- **Kellstedt and Whitten, Chapter 9**

Week 14, Nov 23: Multiple Regression II   (HW4 DUE)

- **Kellstedt and Whitten, Chapter 10, sections 10.1, 10.2, 10.5**

Week 14, Nov 25: No class (Thanksgiving Holiday!)

Week 15, Nov 30: Odds and Ends

Week 15, Dec 2: Review

Week 16, Dec 7-9: Reading week, but I will hold office hours

FINAL EXAM: GROUP 13, THURSDAY, DECEMBER 17, 8-11AM